

Recent records and breeding of Painted Snipe *Rostratula benghalensis* in the Mitchell Grass Downs and Sturt Plateau, Northern Territory.

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Abstract

Three records of Painted Snipe *Rostratula benghalensis* obtained in 1993 and 2001 from the Mitchell Grass Downs and Sturt Plateau biogeographic regions are described. They include the first documentation of breeding by Painted Snipe in the Northern Territory and confirm it as an irregular rather than vagrant visitor to the Territory's wetlands. Habitats for the records comprised coolibah, lignum and grass swamps subject to temporary inundation and under pastoral grazing regimes. The Painted Snipe is listed as Vulnerable under Northern Territory legislation. No immediate threat to the species is known in the regions where it was observed but further surveys, to better understand its status, are recommended.

Introduction

In Australia, the Painted Snipe *Rostratula benghalensis* occurs mainly over eastern parts of the continent, apparently in low numbers (Marchant & Higgins 1993). Lane and Rogers (2000) proposed that the Australian population should be considered a separate species, *R. australis*, from other Old World populations of *R. benghalensis*. Based on a marked decline in reporting rate over the last 40 years (Lane and Rogers 2000), Garnett & Crowley (2000) considered the Painted Snipe to be nationally vulnerable. Painted Snipe has recently been nominated for listing as Vulnerable under *The Environment Protection and Biodiversity Conservation Act 1999* (M. Walkington pers. comm.).

The Painted Snipe has rarely been recorded in the Northern Territory. Apart from the three records described in this paper, the databases of the NT Parks and Wildlife Commission and of Birds Australia include only 16 other records for the Northern Territory: five from the south, ten from central regions and one from the Top End (A. Fisher pers. comm., D. Rogers pers. comm.). Painted Snipe is listed as Vulnerable under *The Territory Parks and Wildlife Conservation Act 2001*.

During 1993-5 and 2001-2, the author was engaged by the Parks and Wildlife Com-

mission of the Northern Territory and Environment Australia to conduct surveys of wetlands and waterbirds in parts of the Mitchell Grass Downs and Sturt Plateau bioregions (Environment Australia 2002a). This involved considerable ground and aerial survey effort in wetlands of the Barkly Tableland during 1993-5 and in June 2001 and April 2002, and a ground survey of wetlands in the Sturt Plateau in May-June 2001.

Sighting and breeding at Tarrabool Lake in 1993

On 19 May 1993, Wayne Zadow and the author found five Painted Snipe on the north-western shore of Tarrabool Lake (18° 14.3' S, 134° 51.8' E). Tarrabool Lake is situated on the blacksoil plains of the Barkly Tableland, in the western portion of the Mitchell Grass Downs bioregion. At the time, the inundated area of the lake was in the order of 200 000 ha due to major floods in February 1993 (Jaensch 1994).

The birds were near a series of shallow pools on gently sloped lake-shore, 10-20 m landward of the current, irregular water line and about 1 m in elevation below the 1993 high water mark. Vegetation comprised open woodland to 5-7 m of Barkly Coolibah *Eucalyptus barkhyensis*, over sparse tussock grassland (of an unidentified grass similar to Rat's Tail Couch *Sporobolus mitchellii* but taller) to 0.5 m, and bare ground. Thick tussocks were scattered around the pool edges and on some islets in the pools. Water in the lake and pools was fresh and milky in colour.

On 19 May (late in the morning) the birds were flushed from dry ground and/or pool edges and flew less than 50 m, 1-2 m above ground. On landing, they ran to cover in the shade of trees or among debris, or remained motionless, sometimes squatting. No calls were detected. One bird was an adult female and the others were either males or immatures (Marchant & Higgins 1993). A single male or immature was seen in the same area on 20 May, in mid morning. Key features by which the female was identified were its dark hood and upper chest, medium-length drooped bill and rail-like flight. The other birds had dull grey hoods and spotted upper-wings, backs and tails.

A single Painted Snipe egg was discovered at this locality on 19 May, on dry mud 0.1 m from the edge of a pool that was about 15 m long by 5 m wide and up to 0.4 m deep. The egg was on the shore of the pool (not surrounded by water on an islet or spit), at the base of a clump of unidentified, erect tussock grass that was about 0.5 m tall. There was no nest scrape or materials where the egg was found and the egg was cold. The egg was creamy-white with irregular black blotches that were most frequent and largest at the wide end, but also randomly marked over the whole egg, and there were smaller pale spots in the background. The base colour and markings were noticeably different to those on eggs of Red-kneed Dotterel *Erythrogonys cinctus* and Masked Lapwing *Vanellus miles* observed nearby on the same day. Deciding that the egg was not part of an active nest and probably had been abandoned, and aware of the signif-

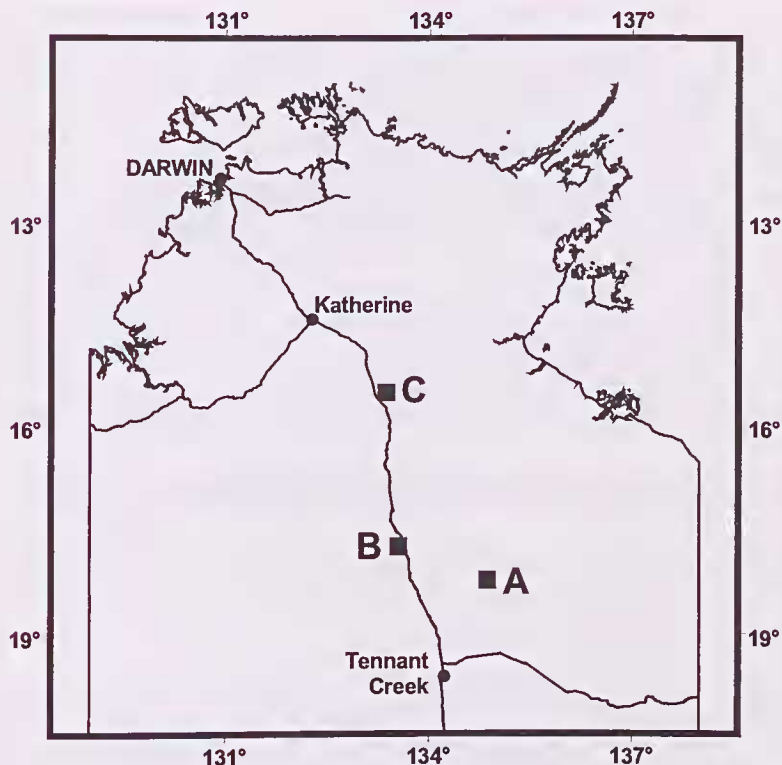


Figure 1. Location of records for Painted Snipe at Tarrabool Lake (A), Lake Woods (B) and Sturt Plateau (C).

ificance of the find, the author collected the egg for lodgement with the Northern Territory Museum (NTMT4341). The egg and habitat were also photographed.

Sighting at Lake Woods in 1993

On 14 December 1993, the author saw a male and female Painted Snipe in swamp on the north-eastern side of Lake Woods ($17^{\circ} 45.6' \text{ S}$, $133^{\circ} 32.8' \text{ E}$), which is on the north-western margin of the Barkly Tableland. The wetland covered an area probably exceeding 30 000 ha, having dried back substantially from the maximum extent caused by major floods in February 1993 (Jaensch 1994).

The habitat was inundated open shrubland of *Lignum Muehlenbeckia florulenta* to 1.5 m in height, with profuse fresh growth. Nardoo *Marsilea* sp. formed an almost continu-

ous, lush cover (to 0.1 m height) under and between the lignum shrubs. The clay lake-bed surface was uneven due to 'gilgai' hollows between each shrub, hence water depth throughout this plant community varied from 0 to 0.3 m (mostly around 0.1 m). The water was fresh and varied from clear to milky in colour. Bare muddy or dry areas were at the landward edge of the swamp.

The birds were flushed (in mid morning) from near the base of a sprawling lignum shrub surrounded by inundated dense nardoo, about 30 m from the landward edge of the lignum swamp. They flew 30 m in a lakeward direction, just above or through the lignum shrubs, and landed in similar habitat. A female Painted Snipe that was flushed from the landing area flew to the landward edge of the swamp. The female was identified by its dark upper chest and hood and few spots on the upperparts, whereas the male had a paler chest/hood and prominent golden spots on its upperwings. No calls were detected. The author and Niven McCrie searched unsuccessfully for a nest.

Sighting and possible breeding on the Sturt Plateau in 2001

On 3 June 2001, the author observed two Painted Snipe at a small (ca 20 ha) unnamed swamp in the eastern part of the Sturt Plateau (15° 32.6' S, 133° 22.0' E). The swamp was one of many, mostly unconnected, small swamps on the eastern Plateau that had retained water following major floods in the Wet season of 2000-1.

The habitat for this sighting was the margins of a swamp, where it extended across a 30 m wide laneway, cleared of trees, between parallel fences. The birds were in sparse tussock grassland of Silky Brown-top *Eulalia aurea* (to 0.5 m tall), with regrowth of a few saplings less than 3 m tall. Water among the tussocks was mostly less than 0.1 m deep and there were low dry ridges, created by past grading of firebreaks, and damp muddy areas. Adjacent inundated swamp was dominated by tall bloodwoods *Corymbia polycarpa* and some *Lophostemon grandiflorus* shrubs over dense grassland of Silky Brown-top and sedge *Cyperus procerus*, with central open water to 0.5 m deep. Water was fresh and clear, and the substrate was grey clay.

The birds were flushed several times, flying less than 30 m. One bird, with a complete grey hood, was judged to be probably an adult male but it was not possible to determine the gender or age of the other bird. The male bird was twice seen on bare damp mud having landed after flying in a low arc around the site. On each occasion it spread its wings and held them open, hinged downward, as it remaining motionless. Such a display by this species is sometimes indicative of the presence of young nearby (Marchant & Higgins 1993). The author and Craig Hempel searched unsuccessfully for a nest and juveniles.

Discussion

These three records of Painted Snipe were from diverse wetland habitats - Coolibah wooded swamp and shore, Lignum shrub swamp, and tussock grass swamp. In each case there were bare, muddy open areas and low dense cover of grass/forbs in the vicinity. In two cases the site was part of a particularly large wetland, but the third site was a small wetland. These findings are consistent with the documented wide range of habitats used, alone or in combination, by this species in Australia (Marchant & Higgins 1993).

Previous records of Painted Snipe from the Mitchell Grass Downs bioregion in the Northern Territory are from the middle reaches of the Playford River in 1905/6, from Bruntic Creek in April 1906, from the Elliott area (10 km north-east of Lake Woods) in November 1941, and from the Dunmarra area (apparently Milner Lagoon, near the boundary with the Sturt Plateau bioregion) in August 1991 (Storr 1977, PWCNT Fauna Database, Birds Australia Historical Atlas). The total of six records to 2002 may not seem significant. However, the species is notoriously difficult to find in swampy habitat, often exhibits secretive behaviour and is considered to be most active at night (Marchant & Higgins 1993). Few observers visit these wetlands, none regularly. The records to date therefore indicate more frequent occurrence of Painted Snipe in the Mitchell Grass Downs (Barkly wetlands) than might otherwise be assumed.

Until recently there were few breeding records of Painted Snipe in tropical Australia: Marchant & Higgins (1993) mention a record from north-east Queensland and Hassell and Rogers (2002) document records from two localities in the south-west of the Kimberley Division of Western Australia. The Painted Snipe egg found at Tarrabool Lake in 1993, though not a successful breeding effort, nevertheless is the first documented attempt at breeding by the species in the Northern Territory. Additional, though indirect, evidence of possible breeding on the Sturt Plateau was obtained in 2001. The author therefore concludes that Painted Snipe should be considered a non-vagrant, breeding species in the Northern Territory and that further breeding efforts are likely to be detected in the future.

The 1993 and 2001 sightings each occurred several months after particularly large floods on the Barkly Tableland and/or Sturt Plateau. The 1905 and 1906 sightings occurred after average or below-average rainfall in the preceding Wet season; the 1941 and 1991 sightings occurred after average to above-average rainfall in the preceding Wet season (DNR 1997). Occurrence of Painted Snipe in these regions therefore may sometimes, but not necessarily, be linked to major flood events.

The occurrence and breeding of Painted Snipe, a vulnerable species, in wetlands of the Barkly Tableland further underlines the regional and national importance (Jaensch

& Bellchambers 1997, Environment Australia 2002b) of these wetlands for the conservation of waterbirds. The locations of the 1993 and 2001 Painted Snipe records are all from areas under pastoral grazing regimes. It is possible that such grazing, where operated as an ecologically sustainable enterprise, poses no long term threat to continued occurrence of Painted Snipe. Hassell and Rogers (2002) point out that cattle may avoid swamps, to some extent, when the swamps are boggy and water is plentiful. However, information is needed on the possible impact of cattle trampling on active nests.

A decline in Painted Snipe has been documented at a national scale (Lane & Rogers 2000). Records of this species from the Northern Territory are too sparse to assess whether it has similarly declined here, although these records provide evidence of the persistence of the Painted Snipe in the Mitchell Grass Downs and Sturt Plateau. Further field surveys under appropriate wetland conditions are needed in order to monitor the status of this vulnerable species in this part of Australia.

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Plate 1. Habitat where Painted Snipe egg was located at Lake Tarrabool and (inset) close-up of egg. (Photos: R. Jaensch, Wetlands International)